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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,430	07/27/2001	Dirk Raschke	KLR 8190.001	1125

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EXAMINER

VIGUSHIN, JOHN B

ART UNIT PAPER NUMBER

2827

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/917,430

Applicant(s)

RASCHKE, DIRK

Examiner

John B. Vigushin

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) g. 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 5-8 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, **Claims 5-8 have not been further treated on the merits.**
2. Claims 1-4 are objected to because of the following informalities:

As to Claim 1, line 15: "materilize" should be changed to --materialize--.

As to Claim 2, line 6: "is" should be changed to --are--.

Claims 3 and 4 depend from Claims 1 and 2 and therefore inherit the above-cited defects in those claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hirschfeld (US 5,128,500).

Hirschfeld (US 5,128,500, which claims priority to DE 3904771 C1 submitted by Applicant with IDS filed February 15, 2002 as Paper No. 8) discloses: a circuit board

Art Unit: 2827

assembly comprising a left-hand circuit substrate (substrate 12 in Fig. 2) and an identical right-hand circuit substrate (viewer facing the opposite side, not shown, of substrate 12 in Fig. 2), each including electrical and/or electronic and/or electromechanical components (switch modules 2, 3, 4, 5, 6) and circuitry (Figs. 3 and 4); the switch modules 2, 3, 4, 5, 6 are positioned symmetrically mirrored on the left-hand substrate (substrate 12 in Fig. 2) and right-hand substrate (viewer facing the opposite side, not shown, of substrate 12 in Fig. 2), respectively, when the left-hand substrate and right-hand substrate are oriented along a mirror plane *P*, wherein the circuit-functional contact assignments of at least one circuit-functional mirror-invariant switch module 2, 3, 4, 5, 6--invariance due to module symmetry about the imaginary center line 14 indicated in Fig. 2 (see col.3: 23-26 and 30-39)--on the right-hand circuit substrate (i.e., viewer facing the opposite side, not shown, of substrate 12 in Fig. 2) materialize by a translational shift (to the right of Figs. 2 or 4) perpendicular to the mirror plane *P* from the circuit-functional contact assignments of the corresponding circuit-functional mirror-invariant switch module 2, 3, 4, 5, 6 (Fig. 2 and col.3: 41-45; Fig. 4 and col.3: 65-col.4: 16); [*Examiner's Note*: in Figs. 2 or 4, consider the imaginary mirror plane *P* as located at the right of left-hand substrate 12, equidistant between the right-hand substrate 12 (viewer facing opposite side, not shown, of substrate 12) and corresponding left-hand substrate 12 of Fig. 2, the corresponding right-hand substrate obtained by flipping left-hand substrate 12 180° clockwise through the imaginary mirror plane *P*, about an axis of rotation *g* located in the imaginary mirror plane *P*; i.e., *flip drawing sheet 1 of 4--or sheet 2 of 4--180° clockwise and view, through the paper, Fig.*

2 or Fig. 4 from the back]; the circuitry on the left-hand circuit substrate (see Fig. 4) can be translated into the circuitry on the right-hand circuit substrate (i.e., viewer facing the opposite module-mounting side, not shown, of substrate 12 in Fig. 4) by flipping it 180° clockwise through the imaginary mirror plane *P*, about an axis of rotation *g* located in the imaginary mirror plane *P* (as mentioned above, flip drawing sheet 2 of 4 180° clockwise and view, through the paper, Fig. 4 from the back) [*Examiner's Note*: this translation, i.e., rotation, result is achieved because **the circuitry is printed on only one surface** of the left-hand substrate 12 (as shown in Fig. 4) and, consequently, the circuitry of left-hand substrate 12 corresponds to the circuitry on the right-hand substrate when the left-hand substrate 12 is translated, i.e., rotated, 180° clockwise, in the manner described above].

Allowable Subject Matter

5. Claims 2-4 would be allowable if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

As to Claim 2, Hirschfeld discloses that the at least one circuit-functional mirror-invariant component (any one of switch modules 2, 3, 4, 5, 6) is a plug including plug contacts arranged in two rows juxtaposed in parallel (best seen in Fig. 4). However, patentability resides in the limitation wherein *the contact terminals (i.e., the connector*

pins; Figs. 2 and 4; col.3: 30-35) of the first row of plug contacts are arranged offset relative to the contact terminals of the second row of plug contacts by a distance x, in combination with the other limitations of the claim.

As to Claims 3 and 4, patentability resides in the limitation wherein *the components on the left-hand circuit substrate are applied to one side of a first stamped matrix and the components on the right-hand circuit substrate are applied to the opposite side of a second stamped matrix identical to the first stamped matrix*, in combination with the other limitations of the broadest claim, Claim 3.

7. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schmidt et al. (US 5,612,577, submitted by Applicant with IDS filed on February 15, 2002 as Paper No. 8) discloses: a circuit assembly comprising a left-hand 61 (Fig. 2A) and an identical right-hand 63 (Fig. 2B) circuit substrate, each including electrical and/or electronic and/or electromechanical components (col.3: 3-7 and 44-53) and circuitry (e.g., contacts --"stampings"-- 58 and 62 among other unlabeled contacts exposed through the substrate openings; Figs. 2A,B); the components of the switch 44 and other component parts (details not shown: col.2: 44-46; col.3: 12-14) are *inherently*

symmetrically mirrored on the left-hand circuit substrate 61 and right-hand circuit substrate 63 when the left-hand circuit substrate 61 and right-hand circuit substrate 63 are oriented along a mirror plane P (consider the mirror plane P as a plane situated between the substrates 61 and 63 in Figs. 2A,B, parallel to and equidistant from the side of each of substrates 61 and 63 that contains contact 62), the above-cited symmetrical mirrored positioning of components being *inherent* because the circuitry on the left-hand substrate 61 is translated into the circuitry on the right-hand circuit substrate 63 by flipping substrate 61 180° about an axis of rotation g located in the mirror plane P and, as can be seen by comparing the contact layout positioning of substrate 61 in Fig. 2A with the contact layout of substrate 63 in Fig. 2B. Schmidt et al. does not teach that circuit-functional contact assignments of at least one circuit functional **mirror-invariant** component S on right-hand circuit substrate 63 materialize by a **translational shift perpendicular to the mirror plane P** from the circuit-functional contact assignments of the corresponding circuit-functional **mirror-invariant** component S' on the left-hand circuit substrate 61.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Vigushin whose telephone number is 703-308-1205. The examiner can normally be reached on 8:30AM-5:00PM Mo-Fri.

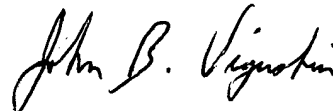
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers

Art Unit: 2827

for the organization where this application or proceeding is assigned are 703-308-7382

for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



John B. Vigushin
Examiner
Art Unit 2827

jbv
February 11, 2003